

Appl. No. 10/717,413
Amdt. dated 10/24/06
Reply to Office action of 7/24/06

REMARKS/ARGUMENTS

Reconsideration of the application is requested.

The Examiner's attention is directed to the second paragraph on page 15 of the Amendment filed March 20, 2006 and item 12 of the above-identified currently outstanding Office Action Summary. It is noted that the Examiner has still not acknowledged the receipt of the Claim for Priority and certified copy of the German Priority Document filed in the instant application. The Examiner is requested once again to correct this oversight or explain to Applicants why receipt of these papers has not been acknowledged.

Claims 11 and 12 are now in the application and are subject to examination. No claims have been amended or added. Claims 1-10 have been canceled to facilitate prosecution of the instant application.

In this regard, it is noted that the Office Action Summary indicates that claims 7 and 8 have been withdrawn. However, it is believed that no claims have been withdrawn in the instant application.

In "Claim Rejections - 35 USC § 102" on pages 2-4 of the Office Action, claims 1-6 and 10-12 have been rejected as

Appl. No. 10/717,413
Amdt. dated 10/24/06
Reply to Office action of 7/24/06

being fully anticipated by U.S. Patent No. 6,411,387 to
Kaneko et al. (hereinafter Kaneko) under 35 U.S.C. § 102(b).

It is assumed that the Examiner's comment regarding the
"reference of Ina" is a clerical error.

In "Claim Rejections - 35 USC § 103" on pages 4-5 of the
Office Action, claim 9 has been rejected as being obvious
over Kaneko under 35 U.S.C. § 103(a).

As will be explained below, it is believed that claims 11 and
12 were patentable over the cited art in their original form
and, therefore, those claims have not been amended to
overcome the references. However, as mentioned above, claims
1-10 have been canceled and therefore only claims 11 and 12
are now under consideration.

Before discussing the prior art in detail, it is believed
that a brief review of the invention as claimed, would be
helpful. Claim 11 calls for, *inter alia*, a method for
adjusting a substrate in an exposure appliance used for
transferring a structure to the substrate, the appliance
including a moving chuck for aligning the substrate, a
radiation source, and at least one focusing device, the
method which comprises:

Appl. No. 10/717,413

Amdt. dated 10/24/06

Reply to Office action of 7/24/06

for at least one first position on the chuck, obtaining a measured discrepancy by measuring any discrepancy between a surface of the chuck and an idealized plane;

providing the substrate, which is covered with a photosensitive layer, on the chuck such that the surface of the chuck faces the substrate;

selecting a first detail from a plurality of details provided for measuring an ideal focus distance in the photosensitive layer, the first detail representing a first exposure area on the substrate, the selecting step including defining a projected first position by projecting the first position on the chuck into the photosensitive layer and selecting the first detail such that the projected first position is located within or near the first detail;

setting a predetermined limit value for a permissible discrepancy;

comparing the measured discrepancy with the predetermined limit value;

as a function of the comparing step, excluding a detail from the plurality of details provided for measuring the ideal focus distance in the photosensitive layer;

obtaining a measured ideal focus distance by measuring a focus distance being ideal for exposure in at least one further detail from the plurality of details; and

moving the chuck to adjust the substrate to the measured ideal focus distance for illuminating the first exposure area.

Independent claim 12 calls for, *inter alia*, a method for adjusting a substrate in an exposure appliance used for transferring a structure to the substrate, the appliance including a moving chuck for aligning the substrate, a radiation source, and at least one focusing device, the method which comprises:

Appl. No. 10/717,413

Amdt. dated 10/24/06

Reply to Office action of 7/24/06

for at least one first position on the chuck, obtaining a measured discrepancy by measuring any discrepancy between a surface of the chuck and an idealized plane;

providing the substrate, which is covered with a photosensitive layer, on the chuck such that the surface of the chuck faces the substrate;

selecting a first detail including at least one first adjustment mark from a plurality of details in the photosensitive layer, the first detail representing a first exposure area on the substrate, the selecting step including defining a projected first position by projecting the first position on the chuck into the photosensitive layer and selecting the first detail such that the projected first position is located within or near the first detail;

setting a predetermined limit value for a permissible discrepancy;

comparing the measured discrepancy with the predetermined limit value;

as a function of the comparing step, not considering the adjustment mark in the first detail; and

based on at least one further adjustment mark, moving the chuck to adjust the substrate in a direction at right angles to a direction of a focus distance for illuminating the first exposure area.

Therefore, according to independent claim 11, a predetermined limit value is set for a permissible discrepancy between a surface of the chuck and an idealized plane. An actual discrepancy is then measured and compared with the predefined limit value. Depending on the comparison step, a detail (such as a focus area other than the first focus area, for instance) of the plurality of details (such as focus areas, for instance) is excluded when measuring the ideal focus

Appl. No. 10/717,413
Amdt. dated 10/24/06
Reply to Office action of 7/24/06

distance in the photosensitive layer (see the third step from the end of claim 11). Accordingly, those focus areas having a defocus being larger than the predetermined limit value are ignored, that is excluded from calculation, when calculating and thereby obtaining the measured ideal focus distance.

Claim 11 thus recites a method for more reliably obtaining an ideal focus plane, since strongly misaligned focus areas do not contribute to the calculation of the ideal focus plane.

According to the Response to Arguments on page 6, first paragraph of the Office Action, Kaneko discloses these features of claim 11 of the instant application in column 4, lines 49 to 67 and furthermore discloses the features of claim 12 of the instant application in column 6, line 44 to column 7, line 5.

Actually, however, upon studying these passages in Kaneko, it is seen that the features of claim 11 discussed above (as well as the features of claim 12) are not disclosed therein. The Examiner does not cite any particular wording in the above-mentioned passages of Kaneko which would correspond to any predefined limit value. On the contrary, according to column 4, lines 65 to 67 of Kaneko, any discrepancy, irrespective of its magnitude, is corrected based on the

Appl. No. 10/717,413
Amdt. dated 10/24/06
Reply to Office action of 7/24/06

measured displacement. Accordingly, a focus area having a large discrepancy from an ideal focus plane (obtained by the other focus areas) is also included (rather than excluded) when obtaining the ideal focus distance.

Furthermore, according to the penultimate paragraph of claim 12 of the instant application, single adjustment marks may be ignored (that is they are not considered), depending on the result of the preceding comparison step, when moving the chuck for optimum wafer position. Additionally, according to claim 12, a predetermined limit value is set (fifth paragraph of claim 12). Kaneko thus also fails to disclose or render obvious the method of claim 12 for the reasons outlined above.

Independent claims 11 and 12 are therefore believed to be patentable over Kaneko.

It is also noted that in the parallel proceedings at the German Patent and Trademark Office, Kaneko was also cited, but German Patent No. 102 53 919 was nevertheless granted on September 23, 2004 for claims corresponding to present claims 11 and 12 of the instant application.

Appl. No. 10/717,413
Amdt. dated 10/24/06
Reply to Office action of 7/24/06

It is accordingly believed to be clear that neither Kaneko nor any of the other references, whether taken alone or in any combination, either show or suggest the features of claims 11 and 12. Claims 11 and 12 are, therefore, believed to be patentable over the art.

In view of the foregoing, reconsideration and allowance of claims 11 and 12 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate receiving a telephone call so that, if possible, patentable language can be worked out.

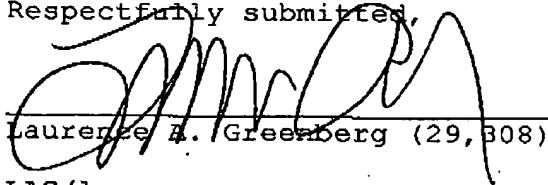
In the alternative, the entry of the amendment is requested, as it is believed to place the application in better condition for appeal, without requiring extension of the field of search.

If an extension of time is required, petition for extension is herewith made. Any extension fee associated therewith should be charged to Deposit Account Number 12-1099 of Lerner Greenberg Sterner LLP.

Appl. No. 10/717,413
Amdt. dated 10/24/06
Reply to Office action of 7/24/06

Please charge any other fees that might be due with respect
to Sections 1.16 and 1.17 to Deposit Account Number 12-1099
of Lerner Greenberg Sterner LLP.

Respectfully submitted,



Laurence A. Greenberg (29,308)

LAG/lq

October 24, 2006

Lerner Greenberg Sterner LLP
P.O. Box 2480
Hollywood, Florida 33022-2480
Tel.: (954) 925-1100
Fax: (954) 925-1101